

On the Importance of special Scientific Knowledge to the Practical Metallurgist. By JOHN PERCY, M.D.F.R.S. Her Majesty's Stationery Office. 1852.

On the Science of Geology and its Applications. By ANDREW C. RAMSAY, F.R.S. Her Majesty's Stationery Office. 1852.

On the Value of an extended Knowledge of Mineralogy and the Process of Mining. By WARINGTON W. SMITH, M.A. Cam. F.R.S. &c. Inspector of Mines to the Duchy of Cornwall. Her Majesty's Stationery Office. 1852.

The lectures in the Government School of Mines and of Science applied to the arts at the Museum of Practical Geology in Piccadilly are making progress. The three more lectures now issued are in themselves sterling and instructive ones to practical men even though merely introductory.

"It is not pretended," says Mr. Smith, "that by any plan of education in an Institution of this kind, it is possible to make a miner, or in other words, to prepare a man for taking charge of a mine as soon as he has left our walls: not more reasonably should we expect that a lad drilled in the classes of a naval college were at once metamorphosed into a sailor, fitted at once to take command of a ship. Yet surely no one will deny, that if in that school he has learnt to box the compass, to knot and splice, if he has worked out problems in navigation on sound mathematical principles, if he has been taught by descriptions how to handle a vessel at anchor in a tideway, or on a lee-shore, he will be infinitely more ready to take advantage of circumstances, and to make rapid progress, than if he had been sent on board unknowing of these things and their principles. No 'royal road' to learning, no legerdemain of 'cramping,' can make amends for the want of time and pains bestowed on the acquisition of practice: and as with the seaman so should it be with the miner."

Miscellaneous.

THE ENGINEERING TRADE DIFFERENCES.—The masters' Combination, on previous notice, have opened their workshops to all willing to sign a declaration issued renouncing all operative combination, and otherwise binding themselves to the masters' terms; but it seems that adherents of the skilled class come rather slowly in, while, on the other hand, the French and Belgian masters are hard at work engaging them at high wages, and shipping them off by hundreds to their foreign workshops, where it is said that orders intended for British masters already await their arrival. It is much to be feared that there is now a risk of some such result as that whereby the silk trade of Nantes was transferred to this country, where the descendants of foreign workmen still ply the shuttle as their forefathers did at home. We are likely, therefore, to be "payed off" by the French and Belgians for our advantages on that old score, unless some good understanding be very quickly come to between the masters and their men. The masters were too hasty, we feared, and their subsequent tactics have been rather more energetic than equitable. Their determination to "do what they liked with their own" has, indeed, been made a handle of, as we anticipated, and has done no little good to the workmen's cause. The building trades, composers, and others of the higher class of associations, have taken an interest in the struggle, of course supporting the operatives against the masters, and that not with mere moral countenance, but with hard cash.

STREAM SAWING MATCH.—On 29th ult. a match came off at the Cornbrook Saw-mills and at a mill newly-erected by Mr. Charles Hunt, at the Victoria Quay, Water-street, Manchester, the stakes being for 50l. and "a spread." The conditions were that each frame was to carry thirty-five saws, to saw a pine log 20 feet long and 24 inches deep. The points of excellence contended for were to be speed, quality of work, and the least loss of wood. By Mr. Hunt's machine ten feet of timber were cut in nine minutes, and after all the work had been done on both sides the umpire declared Mr. Hunt's machine had won all the points.

GAS.—Our contemporary the *Journal of Gas-lighting*, which, though decidedly in the supposed interest of the old companies to uphold high prices, appears to be entitled to consideration as a temperately conducted publication, calls our special attention to the complaint of Messrs. Tallis, as a proof that cheap gas must necessarily be bad, and dear gas good. We happen, however, by anticipation, to have already (See last number) sufficiently exposed the fallacy of such a conclusion, even before our attention was drawn to the *Journal of Gas-lighting*; and really that journal knows quite as well as we do that it is far too late, now that so many proofs of what gas can be made and sold for here and elsewhere have been adduced, even to characterise gas sold in the metropolis at 4s. a thousand cubic feet as "cheap" gas in the sense implied, even sold as it is of admittedly good quality at that price by the Chartered Company, who, according to the *Gas Journal* itself, are likely to profit by their determination to give a good article at the price. So far from supporting the so-called Central Gas Consumers' Company, however, we wish it to be distinctly understood that we regard that company as having sold itself out and out to the upholders of high prices; and what could be anticipated from such a fact but that some immense and glaring system of jugglery would be practised in order to damage the movement in favour of cheap and good gas? If such a conclusion should appear to reflect unjust suspicion on individuals still connected with such a company, whom have they to blame but themselves in continuing to have anything to do with it after it had displayed even its first symptoms of an inclination to amalgamate and identify itself with the very cause of dear gas and bad, for which it was to have substituted cheap gas and good?

IMPROVEMENT OF WORKMEN.—Much having been said of late upon the subject and necessity of instructing the workman, it may be hoped that some steps are being taken to forward that most desirable object, which none know and feel the want of so much as those engaged in the execution and production of works of art and decoration, and who should be the persons to do all in their power to forward and promote this important work, and lay down a system by which to prepare the minds of the artisans for the reception of the kind of instruction they require, without which no good result can be obtained; and there are many evils of this kind to contend with. I have endeavoured to establish for my workmen an evening class for the practice and study of drawing, modelling, reading, &c. and have laid before them 500 casts and models from ancient works in England and Germany, with many hundreds of sketches and drawings, and a few books, in order to create and establish an interest in the works we produce, which should, as in the beautiful works of old (the last fragments of which we admire and prize), form of itself an object of delight, as we watch its progress through the different stages of formation, with an anxious desire for its perfect completion.—J. R.

BRIGHTON PAVILION.—One of the gates fell on Tuesday week during a storm and killed a lady besides injuring other persons. The jury on the inquest returned a verdict of accidental death, and expressed an opinion that the hinges of the other gate being of cast-iron should be replaced by wrought-iron ones. The hinges of the gate which fell are said to have given way previous to the accident.

MASTERS AND MEN.—On Friday, 13th inst. Mr. Ludlow gave the first lecture of a course at the Marykbone Literary Institution,—as suggested by the Society for Promoting Working Men's Associations, of which he is a member,—on "Capital and Labour—the Master-Engineers and their Men." He spoke of having endeavoured in vain to obtain a hearing through the press by writing in his own name, and now entered fully into the evils that are not very unlikely to arise through the present lamentable contest between masters and men—urging self-employment by the men. He alluded to the large sums that the society had paid in relieving the sick and infirm members, and funeral fees allowed to the widows.

THE TIMBER TRADE.—According to the annual circular of Messrs. Chaloner and Fleming, of Liverpool, the imports are considerably on the increase—268,960 tons in 1851, against 221,499 in 1850. This is deemed a fitting time to agitate for the abolition of the existing duties. Recent quotations are—American pine, 12d. to 19d. per foot. Red pine, 16d. per foot. Quebec deals, second quality yellow pine, 9d. to 9l. 9s. per standard; third, 8l. to 8l. 7s. 6d.; third spruce, 8l. 2s. 6d. per standard. Fir planks—New Brunswick and Nova Scotia, &c. St. John, 7l. 15s. and 8l. 10s. per standard; Wallace, 8l. for deals, and 8l. 5s. for battens; St. Stephen's, 8l. 8s.; Sackville and Richbuckto, 8l.; Redrue, 7l. 15s.; Prince Edward's Island, 7l. 12s. 6d. to 7l. 15s. per standard. Birch, 14d. per foot to 16d., 17d. and 21d. per foot; Nova Scotia, 12d. and P. E. Island, 13d. per foot. Quebec oak, 18d. per foot, and 20d. to 21d. Lath-wood, 5l. to 6l. per fathom.

LOOK TO YOUR CEILINGS.—A few days ago, in a sitting-room in Lambeth, the greater portion of a plaster ceiling, within the cornice, fell down without affording any warning beyond an unsightly crack which had existed for some time previously: two ladies had a very narrow escape of being, at least, seriously injured: as it was, one of them, a visitor, before she could escape, had her comb shivered to atoms, and received a severe contusion in the body, and sundry other bruises, by which she is laid up, and placed under medical treatment. The fragments of the ceiling showed an expenditure of substance, not only wastefully lavish, but much too trying for the laths to sustain; and, indeed, in the aggregate, no trifling burthen for any frail tenement of (burnt) clay to bear: in thickness, it varied from 1½ to at least 2 inches! a minimum specimen weighing 10½ lbs. to the square foot, or, the average, 1½ ton to a room say 20x15 feet. Only a few laths were broken; those to which the ceiling had adhered: the back of the plaster showed that generally it had parted from the laths for some considerable time, the key having been broken. A short time ago a similar occurrence took place in a village a few miles from town, when an aged and bedridden gentleman was found nearly smothered in the rubbish, saved, probably, by the bed-hangings.

DIRECTING REINS FOR CLOSE CARRIAGES.—We wonder that the idea has not long occurred, that the check-string which is used in close cabriolets for stopping the driver, that you may give him directions, might be converted into a pair of reins, so as to communicate to him all the windings of his devious way, and its eventual termination (supposing you to know it yourself), and by that means bably to obviate the necessity for protruding your head into other driving rains or buffeting winds, and straining both neck and voice in telling him in many words, and with some accompanying delay, what a pull at his right or left elbow could not fail to express much better, and without any loss of time. We have heard that ladies' bonnets have more of the gossamer than felt about them; and also that to them the wielding of power of any kind is attended with rather an agreeable sensation than otherwise: if such things be, then the laying-on the directing-reins would be, to at least the tender portion of animated nature, a decided boon, while their adroit use would be invaluable practice to those in whose visions of earthly felicity pony phaetons flitted in prospect. We recommend the notion to the consideration of cab proprietors, and hope they will immediately order it to be laid on the table, and (as our friend Punch saith) not on the shelf.

WORCESTER CATHEDRAL.—The elegant little spires at Worcester Cathedral, which gave such character to this beautiful building, were, according to the plates in "Green's Worcester," fourteen in number—that was in 1764. And now, alas, in 1852, only two remain. A third was up a short time ago, but has just been taken down. If the Deanery or the Archbishop's houses were in a bad state of repair, we wonder if they would allow them to be removed and not built up again.